

III. REMARKS

Status of the Claims

Claims 31,34,35,40-46, and 51-53 are amended. New claim 54 is added. Claims 26-54 are presented for further consideration.

The Office Action

Applicant is pleased to note that claims 51 and 52 contain allowable subject matter and submits further that, in view of the amendment to claim 53, claim 53 also contains allowable subject on the same basis.

Applicant has amended, 31,40-46, and 52 to overcome the objections raised by the Examiner in the Office Action. Claims 34 and 35 are amended to overcome the objections regarding multiple dependency. Claim 53 is amended to overcome the rejection based on 35USC112. It is submitted that the claims, as amended, fully remedy the basis for the objections and rejection. No new matter is presented. The amendments to the claims are not intended to be limiting, are not made for reasons related to patentability, and should not be interpreted to raise issues of estoppel.

Applicant has considered the Examiner's comments set forth in the Office Action mailed December 18, 2006 and responds in detail below. Reconsideration of the application is respectfully requested in view of the amendments and the following remarks.

Claims 26-28, 30-34, 40, 42, 43, 49, and 50 of this application stand rejected under 35USC103(a), based on the reference Siedel, US Patent No. 6,122,965 in view of Shinji(JP62036561). This rejection is traversed on the following grounds:

The combined teaching of Siedel and Shinji does not render claims 26-28, 30-34, 40, 42, 43, 49, and 50 obvious because it fails to teach or otherwise suggest each and

every limitation of the claims. It is well settled that in order to establish a *prima facie* case for obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, without reference to the disclosure of this application. (MPEP Section 2142) *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria."

Claim 26 includes the following language:

"wherein at least two of the sensors are oriented differently from one another, such that a first sensor is more sensitive than a second sensor to a force in a first direction, and the second sensor is more sensitive than a first sensor to a force in a second direction different to the first direction."

The combined teaching of Seidel and Shinji fail to disclose or suggest this feature. In the device of the claims of this application these features allow the detection of multiple directions of acceleration of specific thresholds. This is not the case in the devices of the cited references.

The combined teaching of Seidel and Shinji is further traversed because there is no motivation in their disclosures to obtain Applicant's invention. In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or combine reference teachings. There must also be a reasonable expectation of success, and the reference(s), when combined, must teach or suggest all of the claim limitations. (See M.P.E.P. §2142). As noted above, the combined teaching fails to disclose or suggest each feature of Applicants' invention as claimed.

Neither reference provides the requisite suggestion or motivation to modify the references as proposed by the Examiner. The Examiner's proposition that Applicants' invention would be obvious as recited in the claims is not supported by the teaching of Seidel and Shinji. The use of a rupturable element in the system of Seidel would destroy the usefulness of Seidel for its intended purpose, namely to provide continuous data with respect to acceleration. If as the examiner suggests a sensor in Seidel ruptures, the device will fail and could no longer provide readings in multiple directions or in any direction at all. It would simple be on or off.

The Examiner has characterized the disclosure of Seidel, at least in part, as follows:

"wherein the deformation of #4a due to the movement of #3a is read as damaging the detecting means)."

The sensors used in Seidel consist of several bending beams 4a-4d that cooperate with piezoresistors 7 to sense bending of the beams in response to acceleration. The piezoresistors change their resistance as they are deformed in the bending process. The claims of this application clearly recite that a component of the sensor is breakable and generates an indication on being ruptured. The piezoresistors are intended to be deformed as part of their normal operation and it is this feature for which such components were chosen for use in the system of Seidel. The piezoresistors of Seidel are not broken, ruptured, or damaged, but merely respond to the bending of the beam with a change in resistance. They return to their original shape, function, and resistance for further detection of acceleration. The Examiner's reading of the deformation of the piezoresistors of Seidel, as breaking or rupturing in the subject application, is contrary to the functioning of the device. If the piezoresistor beams break, the resistance would become infinite and result in failure and no usable data.

The references themselves and/or the knowledge generally available to one of skill in the art does not provide the requisite motivation or suggestion to modify the references as proposed for purposes of 35 U.S.C. §103(a). When "the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a

teaching or suggestion appears in the reference". In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). The Examiner is requested to provide an indication as to where any such teaching, suggestion or motivation appears in the references. Absent such a teaching, it is submitted that the Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a) with respect to the subject matter of independent claims 26, 47, and 49.

Claim 29 stands rejected under 35USC103(a) based on Seidel in view of the reference Shinji and further in view of Bashir, et al, US Patent No. 5,747,543. This rejection is traversed on the same grounds as indicated above because it relies on the combined teaching of Seidel and Shinji as previously applied. In particular the combined teaching fails to disclose or suggest the claimed features of independent claims 26, 47, and 49 as indicated above. The deficiencies of the combined teaching are not remedied by the disclosure of Bashir.

Claims 41, 47, and 48 stand rejected under 35USC103(a) based on the combined teaching of Seidel and Shinji and further in view of Heikkinen (EP1 109 378). This rejection is traversed on the same grounds as indicated above because it relies on the combined teaching of Seidel and Shinji as previously applied. In particular the combined teaching fails to disclose or suggest the claimed features of independent claims 26, 47, and 49 as indicated above. The deficiencies of the combined teaching are not remedied by the disclosure of Heikkinen.

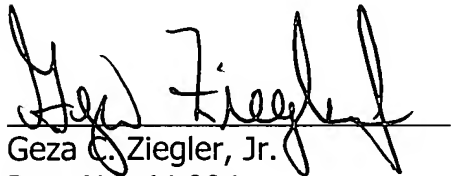
Claims 42-46 stand rejected under 35USC103(a) based on the combined teaching of Seidel and Shinji and further in view of the reference Tennes, et al, U.S. Patent No. 4,745,564. This rejection is traversed on the same grounds as indicated above because it relies on the combined teaching of Seidel and Shinji as previously applied. In particular the combined teaching fails to disclose or suggest the claimed features of independent claims 26, 47, and 49 as indicated above. The deficiencies of the combined teaching are not remedied by the disclosure of Tennes.

These grounds apply equally to the rejected dependent claims, all of which, by dependency, have the limitations described in the independent claims. None of the cited references remedy the deficiencies of the combined teaching of Seidel and Shinji.

For all of the above reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check is enclosed for the payment of the six month extension of time (\$1020) along with the fee for one new dependent claim (\$50) and the RCE fee (\$790). The Commissioner is hereby authorized to charge payment of any other fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



Geza C. Ziegler, Jr.
Reg. No. 44,004

18 June 2007
Date

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

10/502,454

Response to the Office Action mailed December 18, 2006



CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope addressed to Mail Stop RCE, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450

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Person Making Deposit